



11-03-00

LIMBACH & LIMBACH L.L.P.
2001 Ferry Building, San Francisco, CA 94111
415/433-4150

11-032-U.S.PTO
09/05/0999
11/03/00

Address to:

Box Patent Application
Commissioner for Patents
Washington, D.C. 20231

Attorney's Docket No. SONY-U0596

First Named Inventor TOMOSHI HIRAYAMA

UTILITY PATENT APPLICATION TRANSMITTAL
(under 37 CFR 1.53(b))

SIR:

Transmitted herewith for filing is the patent application entitled:

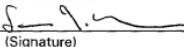
NETWORK SYSTEM AND COMMUNICATION METHOD OF SAME, COMMUNICATION SYSTEM,
INFORMATION RELAYING APPARATUS AND METHOD OF SAME, AND INFORMATION
PROVIDING APPARATUS

CERTIFICATION UNDER 37 CFR § 1.10

I hereby certify that this New Application and the documents referred to as enclosed herein are being deposited with the United States Postal Service on this date November 2, 2000, in an envelope bearing "Express Mail Post Office To Addressee" Mailing Label Number EL254113672US addressed to: Box Patent Application, Commissioner for Patents, Washington, D.C. 20231.

LANA T. BRENNER

(Name of person mailing paper)



Enclosed are:

1. Transmittal Form (two copies required)
2. The papers required for filing date under CFR § 1.53(b):
 - i. 56 Pages of specification (including claims and abstract);
 - ii. 6 Sheets of drawings.
 formal informal
3. Declaration or oath
 - a. Unsigned - Combined with Power of Attorney

ACCOMPANYING APPLICATION PARTS

4. An assignment of the invention to Sony Corporation is attached (including Form PTO-1595).
 - i. 37 CFR 3.73(b) Statement (when there is an assignee)
5. Power of Attorney - Unsigned - Combined with Declaration
6. An Information Disclosure Statement (IDS) is enclosed, including a PTO-1449 and copies of references.
7. Preliminary Amendment.
8. Return Receipt Postcard (MPEP 503 ~ should be specifically itemized)
9. FOREIGN PRIORITY
 Priority of application no. P11-321440 filed on November 11, 1999 in Japan is claimed under 35 USC 119.

The certified copy of the priority application:

is filed herewith; or
 has been filed in prior application no. filed on or
 will be provided.

English Translation Document (if applicable)

10. FEE CALCULATION

a. Amendment changing number of claims or deleting multiple dependencies is enclosed.

CLAIMS AS FILED

	Number Filed	Number Extra	Rate	Basic Fee (\$710)
Total Claims	36 - 20	* 15	x \$18.00	270.00
Independent Claims	6 - 3	* 3	x \$80.00	240.00
			\$270.00	0

*If less than zero, enter "0".

Filing Fee Calculation \$1,220.00

50% Filing Fee Reduction (if applicable) \$

11. Small Entity Status

a. A small entity statement is enclosed.
b. A small entity statement was filed in the prior nonprovisional application and such status is still proper and desired.
c. is no longer claimed.

12. Other Fees

Recording Assignment [\$40.00] \$0
 Other fees _____ \$0
Specify _____

Total Fees Enclosed \$1,220.00

13. Payment of Fees

Check(s) in the amount of \$ 1,220.00 enclosed.
 Charge Account No. 12-1420 in the amount of \$ _____.
A duplicate of this transmittal is attached.

14. All correspondence regarding this application should be forwarded to the undersigned attorney:

Charles P. Sammut
Limbach & Limbach L.L.P.
2001 Ferry Building
San Francisco, CA 94111
Telephone: 415/433-4150
Facsimile: 415/433-8716



01362

PATENT TRADEMARK OFFICE

15. Authorization to Charge Additional Fees

The Commissioner is hereby authorized to charge any additional fees for credit any overpayment associated with this communication and which may be required under 37 CFR § 1.16 or § 1.17 to Account No. 12-1420. **A duplicate of this transmittal is attached.**

LIMBACH & LIMBACH L.L.P.

November 2, 2000
(Date)

Attorney Docket No. SONY-U0596
[S00P1596US00]

By:


Charles P. Sammut
Registration No. 28,901

Attorney(s) or Agent(s) for Applicant(s)

NETWORK SYSTEM AND COMMUNICATION METHOD OF SAME,
COMMUNICATION SYSTEM, INFORMATION RELAYING APPARATUS AND
METHOD OF SAME, AND INFORMATION PROVIDING APPARATUS

5

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a network system for establishing web pages on a network, for example the Internet, to introduce products to users, more particularly relates to a network system enabling a user to inquire about a product without giving his or her own personal information when inquiring about the product and a communication method, a communication system, an information relaying apparatus, and an information providing apparatus relating to the same.

2. Description of the Related Art

A general consumer (hereinafter referred to as a user) sometimes communicates with a company selling some sort of product so as to for example inquire about a product. Such an inquiry is usually by telephone.

Recently, however, reflecting the broad spread of the Internet, an increasing number of companies are setting up homepages. Descriptions of products, requests

for materials concerning products, and other content can also be given or made by accessing the homepages in many cases.

The system disclosed in JP-A-H11-98136 is well-known, in which a registered user transmits a user ID and a request for products to relaying server so that the relaying server access the server of original information to send the products to the user.

Summarizing the disadvantage to be solved by the invention, such communication between the user and a company is a very good opportunity for the user to quickly obtain the required information and for the company directly contact the user to research market trends and promote its own image so is preferably more effectively utilized for both.

Heretofore, however, such communication has never been actively utilized due to the lack of convenience of the communicating means.

In an inquiry by for example the telephone, sometimes even if the user calls, he or she cannot easily connect. In such a case, the user feels unhappy and, in addition, must just wait while holding the telephone, so wastes time.

Further, even after the call is connected, the call is sometimes transferred or the person responding

changed repeatedly until a person who can handle the inquiry is reached.

On the other hand, there are also disadvantages on the company side as well.

5 First, there is the disadvantage that it is impossible to predict the number of such inquiries and therefore it is difficult to deploy the number of operators capable of fielding all inquiries.

10 Further, it is difficult to suitably grasp the content of each inquiry and transfer a call to the proper person. Time and trouble are taken. Further, as a result, calls from users are sometimes passed around.

15 Further, there is also the disadvantage that deploying people able to suitable field various inquiries requires considerable training involving much time, so time and expense are involved.

20 Further, communication via a homepage tends to be avoided by a user since he or she easily becomes concerned that revealing his or her telephone number or address, mail address, and other personal information might lead to more than the necessary sales pitches of products or canvassing etc. continuing in the future.

SUMMARY OF THE INVENTION

An object of the present invention is to provide a
25 network system and communication method capable of

processing an inquiry, request for information, etc. from a user to a company without having the user wait or reveal his or her personal information and of facilitating handling also on the company side.

5 Another object of the present invention is to provide a communication system forming the basis for realizing a network system capable of processing an inquiry, request for information, etc. from a user to a company without having the user wait or reveal his or her 10 personal information and of facilitating handling also on the company side.

Still another object of the present invention is to provide an information relaying apparatus and method of the same and an information providing apparatus suitable 15 for application to the network system capable of processing an inquiry, request for information, etc. from a user to a company without having the user wait or reveal his or her personal information and of facilitating handling also on the company side.

20 According to a first aspect of the present invention, there is provided a network system having an information providing apparatus for providing any information via the network and a user apparatus capable of acquiring intended information via the network, 25 comprising a user apparatus for requesting intended

information with respect to a specific information providing apparatus to a predetermined information relaying apparatus different from said information providing apparatus, an information relaying apparatus 5 for changing said request for information with respect to said user apparatus to a format that does not enable identification of the user apparatus originating the related request and transmitting the same to the information providing apparatus of the destination of the related request and, at the same time, when there is a 10 request for communication from said information providing apparatus, performing predetermined communication with respect to said user apparatus and enabling communication between said information providing apparatus and said 15 user apparatus, and an information providing apparatus providing any information via the network, requesting communication with said user apparatus originating the related request from said information relaying apparatus based on said request for information transmitted from 20 said information relaying apparatus.

According to a second aspect of the present invention, there is provided a communication method between an information providing apparatus providing any information and any user apparatus connected by a network, wherein the user apparatus requests the intended 25

information with respect to a specific information providing apparatus to a predetermined information relaying apparatus different from said information providing apparatus, said information relaying apparatus changes said request for information to a format that does not enable identification of the user apparatus originating the related request and transmits the same to the information providing apparatus of the destination of the related request, said information providing apparatus requests communication with said user apparatus originating the request based on said request transmitted from said information relaying apparatus with respect to said information relaying apparatus, and said information relaying apparatus performs predetermined communication with said user apparatus based on said request of communication and makes the communication between said information providing apparatus and said user possible.

According to a third aspect of the present invention, there is a communication system for performing intended communication between a second communication apparatus and a first communication apparatus based on a request of said first communication apparatus in a network with a plurality of communication apparatus connected therein, comprising a first communication apparatus for requesting intended communication with

respect to a specific second communication apparatus to a predetermined relaying apparatus, a relaying apparatus for converting the request to a format that does not enable identification of the first communication

5 apparatus originating the related request when said intended communication is requested from said first communication apparatus, requesting the related intended communication with respect to the second communication apparatus of the destination of the related request, and

10 performing predetermined communication based on the related request with respect to said first communication apparatus when said second communication apparatus requests communication with said first communication apparatus, and a second communication apparatus for

15 requesting communication with said first communication apparatus originating the request from said relaying apparatus when said relaying apparatus requests said intended communication and performing the intended communication based on said request with the related

20 first communication apparatus.

According to a fourth aspect of the present invention, there is provided an information relaying apparatus comprising a first receiving means for receiving a request for intended information with respect to an information providing apparatus from the user, a

converting means for converting said received request for information to a format that does not enable identification of the user apparatus originating the request, a transmitting means for transmitting said converted request for information to the information providing apparatus, a second receiving means for receiving a request of the communication with respect to said user apparatus from said information providing apparatus, a user apparatus detecting means for identifying the user apparatus of the destination of the communication based on said received request for communication, and a communicating means for predetermined communication based on said request with respect to the related user apparatus based on said detection result.

According to a fifth aspect of the present invention, there is provided an information relaying method comprising a step of receiving a request for intended information with respect to an information providing apparatus from a user apparatus, deleting information identifying the user apparatus originating the related request with respect to said request for information, imparting a predetermined identifier that does not enable identification of the user apparatus originating the related request but identifies the

request for information, converting the same to a new
request for information, and transmitting said converted
request for information to the information providing
apparatus, receiving the request for communication with
5 respect to a user apparatus containing a predetermined
identifier for identifying said request for information
from said information providing apparatus, detecting
information identifying the user apparatus of the
destination of the communication based on said
10 predetermined identifier of said received request of
communication, and performing the predetermined
communication based on said request with respect to the
related user apparatus based on said detection result.

According to a sixth aspect of the present
15 invention, there is provided an information providing
apparatus comprising a first apparatus providing on a web
page an object having a function of receiving input of
any information enabling identification of a user
apparatus accessing the web page and transferring the
20 related received information to a specific apparatus in a
format that does not enable viewing by the related
information providing apparatus and providing any
information on the network by using a web page that can
perform the request via the related object with respect
25 to the user apparatus requesting the communication and a

second apparatus for performing predetermined processing
for handling a request for communication comprised of
said any request for communication received from said
object converted to a format that does not enable
5 identification of the user apparatus and transmitting the
same to a predetermined designated response apparatus.

BRIEF DESCRIPTION OF THE DRAWINGS

These and other objects and features of the present
invention will become clearer from the following
10 description of the preferred embodiments given with
reference to the accompanying drawings, in which:

Fig. 1 is a block diagram of the configuration of an
information communication system according to a first
embodiment of the present invention;

15 Figs. 2A and 2B are views of an example of a web
page provided by a web page carrying computer of an
information providing system of the information
communication system shown in Fig. 1;

Fig. 3 is a view explaining inquiry information of
20 users stored in an IP address management computer of an
information relaying system of the information
communication system shown in Fig. 1;

Fig. 4 is a block diagram of the configuration of an
information communication system according to a second
25 embodiment of the present invention;

Fig. 5 is a view for explaining inquiry information of users stored in a telephone number management computer of the information relaying system of the information communication system shown in Fig. 4; and

5 Fig. 6 is a view explaining inquiry information of users stored in an information communication system according to a third embodiment of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

First Embodiment

10 A first embodiment of the present invention will be explained by referring to Fig. 1 to Fig. 3.

In the present embodiment, the present invention will be explained taking as an example an information communication system 100 which opens up a web page on the
15 Internet to introduce products to a user and, at the same time, enables a user to directly inquire about or refer to products from the web page.

First, the overall configuration of the information communication system 100 will be simply explained.

20 Figure 1 is a block diagram of the configuration of an information communication system 100 of the present embodiment.

The information communication system 100 has a user system 200, an information providing system 300, and an
25 information relaying system 400.

The user system 200 is connected to the Internet 500 and is connected to also the information providing system 300 and the information relaying system 400 via the Internet 500.

5 Further, the information providing system 300 and the information relaying system 400 may be connected by any communication line. For example, the line may be an ordinary public line or dedicated line and also may be the Internet 500.

10 Next, an explanation will be made of the configuration of the parts of the information communication system 100.

The user system 200 comprises a personal computer 210 having a speaker 211 and a microphone 212.

15 The personal computer 210 has a browsing function for inspecting web pages on the Internet 500 and can view any web page on the Internet 500 by operation of the user.

Further, voice outputtable information in the
20 information obtained via the Internet 500 is output from the speaker 211.

Further, the user system 200 has the function of a so-called Internet telephone for real time communication by voice via the Internet 500.

25 Accordingly, the user can converse with any other

node through the Internet by using the speaker 211 and the microphone 212.

The information providing system 300 is a system provided in any group desiring to send some sort of 5 information and has a web page carrying computer 310, a customer request management computer 320, and a telephone 330.

The web page carrying computer 310 is a server device for providing a web page carrying various 10 information of that company via the Internet 500. The web page provided is viewed at the personal computer 210 of the user system 200 accessing the web page carrying computer 310 via the Internet 500.

When providing a web page, an object for receiving 15 some sort of request from a user is sometimes provided. For example, this may include a request for more detailed material, information on a more detailed method for using the product etc., complaints about the products, and so on. In the web page carrying computer 310, when 20 performing processing requiring contact with the user, in other words, processing where personal information of the user becomes necessary, a special object provided by the information relaying system 400 described later is used.

In this object, by user operation, the control is 25 immediately transferred to an inquiry button management

computer 410 of the information relaying system 400. Thereafter, the object is controlled from the inquiry button management computer 410. Accordingly, the information input via this object is not input to the web page carrying computer 310, but is directly input to the inquiry button management computer 410.

An example of a web page for introducing products provided by the web page carrying computer 310 is shown in Fig. 2A and Fig. 2B.

A page 311 for each product is comprised by, for example, as shown in Fig. 2A, an image 312 of the product, a simple explanation 313 of the product, buttons 314 such as "NEXT", "BACK", and "HOME" for moving to the previous or next page, and a "CALL ME" button 315 for inquiring about detailed information of the product. This "CALL ME" button 315 is a special object used when the user makes some sort of inquiry to the information providing apparatus mentioned above.

This object is given a mark 600 indicating that processing by this object is carried out without revealing anything the information providing system 300 in a fashion easily viewable by the user.

Then, when this "CALL ME" button 315 is depressed, under the control from the inquiry button management computer 410 of the information relaying system 400, as

shown in Fig. 2B, an input screen 316 having a window 317 for inputting the IP address of the user, buttons 318 for selecting the type of the inquiry, and a window 319 for designating further detailed conditions etc. is
5 displayed.

The type of the inquiry is for example a general request for information, an inquiry relating to maintenance and/or trouble, an inquiry about a product that has already been purchased, or a complaint and is
10 indicated by selection of a button 318 prepared in advance.

Further, the detailed conditions include a condition such as whether the information is detailed information or somewhat simple information corresponding to the type
15 of the inquiry, the detailed model name of the product, the type of the complaint, etc.

When the user inputs the data with respect to these items, this input screen is closed, the input data is transmitted to the inquiry button management computer
20 410, and a state where the web page is completely controlled from the web page carrying computer 310 is again exhibited.

The customer request management computer 320 is a database for storing various more detailed information
25 regarding the products introduced on the web pages by the

web page carrying computer 310 and information such as
the persons in the information providing apparatus
handling various inquiries from users in a variety of
formats. Further, it receives inquiries from users input
5 from the IP address management computer 420 of the
information relaying system 400 mentioned later.

The customer request management computer 320
primarily extracts information for responding to a
received inquiry from the stored data, requests
10 connection with the user to the IP address management
computer 420 when the response is prepared, and transmits
the response when the communication with the user is
secured.

Further, when an inquiry is made that cannot be
15 handled automatically by the customer request management
computer 320, processing is carried out for detecting the
person suitable for handling that inquiry from the stored
data and notifying the content of the inquiry to that
person. As a result, when that person requests connection
20 with the user via the telephone 330 or to the IP address
management computer 420 and communication with the user
is secured by a means of for example an Internet
telephone, he or she converses with the user.

The customer number, product name, and information
25 relating to the inquiry are input to the customer request

management computer 320 from the IP address management computer 420. Accordingly, when the customer request management computer 320 automatically responds, the customer request management computer 320 extracts the information forming the response based on the product name and the information relating to the inquiry, notifies the customer number to the IP address management computer 420 to request connection with the user, and transmits the extracted information when the communication is secured.

In the present embodiment, it is assumed that detailed materials of the product and the data of voice explanations are stored for every product in the customer request management computer 320. Accordingly, when detailed information with respect to a product has been requested, it is assumed that the response is given according to the data forming the materials and the data of the voice explanation.

Further, when the person in charge in the information providing apparatus wishes to contact the user by the telephone 330, since the customer number is notified from the customer request management computer 320 to that person, that person calls the IP address management computer 420 from the telephone 330, inputs the customer number there by a tone signal or the like to

ask the IP address management computer 420 to secure the communication path with the user.

The telephone 330 is a usual telephone and is used in the case where the person in charge contacts the user
5 via the IP address management computer 420 and directly responds to an inquiry.

The information relaying system 400 has the inquiry button management computer 410 and an IP address management computer 420.

10 The inquiry button management computer 410 displays an object for input of inquiry information from the user to the information providing apparatus on the personal computer 210 of the user system 200 in accordance with the transfer of the control from the web page carrying computer 310, acquires the inquiry information, and
15 outputs the same to the IP address management computer 420. At this time, the information on the company providing the web page or on the product being viewed in the web page etc. are simultaneously output to the IP address management computer 420.
20

Explaining this concretely, when the user operates the object provided on the web page provided by the web page carrying computer 310 and used when the user wants to access the selling company in some way, control with
25 respect to the following web pages is immediately

transferred from the web page carrying computer 310 to the inquiry button management computer 410.

Therefore, the inquiry button management computer 410 first displays an input screen 316 having a window 317 for inputting the IP address of the user, buttons 318 for selecting the type of the inquiry, and a window 319 for further designating further detailed conditions etc. as shown in Fig. 2B on the personal computer 210 of the user system 200 and prompts the input of the information.

Then, when the user inputs the data for these items, the inquiry button management computer 410 adds the information of for example the information providing apparatus and products obtained at the transfer of the control by the web page carrying computer 310 to the obtained information and outputs the same to the IP address management computer 420.

Then, it closes the input screen 316 and returns the control of the web page to the web page carrying computer 310.

The IP address management computer 420 newly generates a customer number and adds it to each information in the information relating to the IP address of the user, information providing computer (information providing apparatus), and inquiry (inquiry contents, option 1 (OP1), and option 2 (OP2)) input from the

inquiry button management computer 410 and adds the information of the time when the inquiry was made and stores the result in a tabular format as shown in for example Fig. 3.

5 At this time, the generated customer number may be given at random or generated from the IP addresses. Note that when it generated from the IP addresses, it is necessary to prevent the IP address from being detected from the generated customer number.

10 After storing the input information, the IP address management computer 420 outputs information relating to the customer number, products name, and inquiry to the customer request management computer 320 of the information providing system 300.

15 Further, when the customer number is input from the customer request management computer 320 and a communication path for responding to an inquiry is requested, the IP address management computer 420 refers to the stored data, detects the IP address of the user corresponding to that customer number, and accesses the personal computer 210 of the user. Then, the customer request management computer 320 and the personal computer 210 are de facto connected.

20 Due to this, the response to the inquiry is transmitted from the customer request management computer

320 to the personal computer 210.

Namely, when for example detailed information with respect to a product has been requested, the data constituting the detailed materials is displayed on the 5 personal computer 210 or stored and the voice explanation is output from the speaker 211.

Further, when communication path is requested for responding to an inquiry by a call made from the telephone 330 of the information providing system 300 and the input of the customer number by a tone signal or the like, the IP address management computer 420 detects the 10 IP address of the user corresponding to that customer number by referring to the stored data and accesses the personal computer 210 of the user. Then, it places the 15 customer request management computer 320 and the personal computer 210 in a communicable state by the function of the Internet telephone.

By this, the person in charge of the information providing system 300 and the user can directly talk and 20 the inquiry can be responded to.

Note that, in the present embodiment, the IP address management computer 420 will impart a different customer number to an inquiry from the same user if the occurrence 25 is different.

Further, the data stored in the IP address

management computer 420 is suitably erased.

Next, an explanation will be made of the operation of the information communication system 100 having such a configuration.

5 First, the user inspects for example the web page introducing the products provided by the web page carrying computer 310 of the information providing system 300 via the Internet 500 from the personal computer 210 of the user system 200.

10 As shown in Fig. 2A, the page 311 for introducing the product is provided with the "CALL ME" button 315 for directly inquiring about detailed information of the product by telephone in addition to the image 312 of the product, a simple explanation 313 of the product, and the 15 paging buttons 314.

The user finds a product he is interested in and clicks the "CALL ME" button 315 provided corresponding to the product when desiring further detailed information.

Due to this operation, control with respect to the 20 web page is temporarily transferred from the web page carrying computer 310 to the inquiry button management computer 410, and the input of the information required for the inquiry is prompted by the inquiry button management computer 410 of the information relaying system 400. Namely, the web page 311 for introducing the 25

product displays the screen 316 for inputting the IP address and the inquiry contents as shown in Fig. 2B.

Then, the user inputs the telephone number of the telephone 220 of the user system 200 and the inquiry content by this screen 316.

When the telephone number and the inquiry content are input, the input content is transmitted to the inquiry button management computer 410. Further, the information of the product name and the information of the information providing apparatus detected when control is shifted from the web page carrying computer 310 are added and the result output to the IP address management computer 420.

The IP address management computer 420 allocates a customer number to the IP address of the user based on a predetermined rule, stores the information, and transmits the customer number, the input information of the type of the inquiry and the product name to the customer request management computer 320 of the information providing system 300.

The customer request management computer 320, based on the transmitted information, detects the stored information concerning the product as the information for response. Then, in order to respond to the user, it transmits the customer number to the IP address

management computer 420 to demand connection with the user.

On one hand, the customer request management computer 320 detects the person in charge suitable for handling the inquired information and notifies the information of the inquiry to the person in charge. The person in charge receiving the notification examines the content and, if it is content for which he or she must directly contact the user, calls to the IP address management computer 420 from the telephone 330, transmits the notified customer number by tone signal, and requests conversation with the customer.

When the customer number is transmitted from the customer request management computer 320, the IP address management computer 420 detects the IP address of the user by referring to the table shown in Fig. 3, connects with the personal computer 210 via the Internet 500, and secures the communication path between the customer request management computer 320 and the personal computer 210.

Then, the customer request management computer 320 transmits the information of the response to the personal computer 210 via this secured communication path. Namely, the usual data is displayed on the personal computer 210 and voice data is output from the speaker 211.

Further, when the customer number is notified by a tone signal from the telephone 330, the IP address management computer 420 detects the IP address of the user by referring to the table shown in Fig. 3 and calls 5 the personal computer 210 by the function of an Internet telephone via the Internet 500. Then, when the personal computer 210 responds that communication is possible, a communication path is secured so that the direct communication between the telephone 330 and the personal 10 computer 210 is possible.

As a result, the person in charge in the information providing company and the user become able to directly talk.

In this way, in the information communication system 15 of the present embodiment, the user can make any inquiry to the information providing apparatus without revealing personal information such as the IP address to the information providing apparatus. Then, he or she can acquire a response to the inquiry still in the state 20 where no personal information such as IP address is revealed.

Further, the information provider can prevent a loss 25 of opportunity for contact with the user, it becomes easier to facilitate acquisition of the voice, requests, and information from the user and for example obtain

effective marketing information.

Second Embodiment

Next, an explanation will be made of a second embodiment of the present invention by referring to Fig. 5 and Fig. 4.

5 4 and Fig. 5.

In the first embodiment, the user sent and received all information with the information providing system 300 and the information relaying system 400 via the Internet 500. In some cases, however, a quick response by ordinary 10 phone is adequate. In the first embodiment, the Internet telephone could be used to handle such an inquiry, but the Internet telephone is not a widespread function.

10 Therefore, as a second embodiment, a system enabling a response from the information providing apparatus to be 15 received by an ordinary subscriber telephones is illustrated.

First, an explanation will be given of the configuration of the information communication system 110 of the second embodiment by referring to Fig. 4.

20 Note that the same references are attached to components having similar functions to those of the first embodiment and explanations thereof will be omitted.

Figure 4 is a block diagram of the configuration of 25 such an information communication system 110 of the second embodiment.

The information communication system 110 of the second embodiment has a user system 200b, an information providing system 300b, and an information relaying system 400b.

5 The user system 200 has the personal computer 210 and a telephone 220, the information providing system 300b has the web page carrying computer 310, a customer request management computer 320b, and the telephone 330, and the information relaying system 400b has the button management computer 410 and a telephone number management computer 430.

10

In such a configuration, the configurations of the personal computer 210, web page carrying computer 310, and button management computer 410 are basically the same
15 as those of the first embodiment. Note, in the information communication system 110, the information for identifying the user input from the web page by the user when making an inquiry is not the IP address, but the telephone number, so the data item to be processed
20 changes.

The telephone 220 of the user system 200b is a usual telephone connected to the public line and used when the person in charge in the information providing apparatus directly orally responds to an inquiry made by the user.
25 This telephone 220 is called from the person in charge in

the information providing apparatus by mediation of the telephone number management computer 430 of the information relaying system 400 mentioned later.

The customer request management computer 320b of the
5 information providing system 300b is configured so as not to perform the processing for searching through the database to extract information forming the response to the inquiry of the user and transmitting the same to the user via the Internet, but to perform only the processing
10 for detecting the person in charge suitable for responding to the inquiry of the user and notifying the inquired content to the person in charge.

The telephone number management computer 430 of the information relaying system 400b newly generates a
15 customer number and adds this to the information in the information of the telephone number of the user and information according to the information providing apparatus and the inquiry (inquiry contents, option 1 (OP1), and option 2 (OP2)) input from the inquiry button
20 management computer 410 or adds the information of the time when the inquiry was made and stores the same in a tabular format as shown in for example Fig. 5.

When the input information is stored, the telephone number management computer 430 outputs the information
25 according to the customer number, product name, and the

inquiry to the customer request management computer 320 of the information providing system 300.

Then, when there is a call from the telephone 330 of the information providing system 300 and the customer number is input by a tone signal or the like, it refers to the stored data, detects the telephone number of the user corresponding to the customer number, and calls that number. Then, it places the telephone 220 and the telephone 330 in a communicable state.

Due to this, the person in charge in the information providing system 300 and the user can directly talk and thus inquiry responded to.

Note that the telephone number management computer 430 will impart a different customer number to an inquiry from the same user if the occurrence is different.

Further, the data stored in the telephone number management computer 430 is suitably erased.

Next, an explanation will be given of the operation of the information communication system 110 having such a configuration.

The processing by which the user views the web page, finds a product he or she is interested in, and clicks the "CALL ME" button 315 to get further detailed information is the same as that of the first embodiment.

When clicking the "CALL ME" button, the web page for

introducing the product displays a screen for input of the telephone number and the inquiry content, so the telephone number of the telephone 220 and the inquiry content are input from this screen.

5 The input information is transferred together with the information of the information provider and the product to the telephone number management computer 430, and a customer number corresponding to the telephone number of the user is allocated and stored in the tabular format as shown in Fig. 5.

10 Then, the telephone number management computer 430 transmits the generated customer number and the information of the input inquired content to the customer request management computer 320b of the information providing system 300b.

15 The customer request management computer 320b selects the person in charge who can handle the inquiry of the product based on the transmitted information and instructs the person in charge to call the telephone number management computer 430 from the telephone 330.

20 The telephone number management computer 430 prompts the input of the customer number when there is a call from the telephone 330. By this, the person in charge inputs the customer number by using a means such as the tone buttons.

The telephone number management computer 430 finds the telephone number of the customer by referring to the stored table based on this and automatically calls the telephone 220 of the user system 200b.

5 As a result, the person in charge in the information providing system 300b can directly talk to the user and respond to the inquiry.

As explained above, in the information communication system 110 of the second embodiment, similar to the first embodiment, the user can make an inquiry with respect to the information provider without directly revealing personal information such as the telephone number to the information provider. Further, he or she can obtain a response to the inquiry in the state where no personal 10 information such as the telephone number is revealed.

15 Further, particularly he or she can directly talk by the phone via a usual telephone, therefore the range of application becomes broader.

Further, the information providing company can 20 determine the inquiry content to a certain extent before directly communicating, for example, by speech with the user by the phone, so advance preparation can be efficiently made.

Third Embodiment

25 Next, an explanation will be made of a third

embodiment of the present invention by referring to Fig.
6.

In the first and second embodiments, the data stored
in the IP address management computer 420 or the
5 telephone number management computer 430 were suitably
erased. Further, different customer numbers were
individually attached even with respect to inquiries from
the same user.

However, if statistical processing is suitably
10 carried out for such inquiry data from the customer in a
state where confidentiality is maintained, data effective
in various points for the information provider may be
obtained.

Such an information communication system actively
15 utilizing the state of inquiry from the user will be
explained as a third embodiment of the present invention.

The information communication system of the third
embodiment differs only in the method of information
processing in the IP address management computer 420 or
20 the telephone number management computer 430 and can be
applied to both of the first and second systems. Below,
an explanation will be made taking as an example the user
management computer 420.

First, basically, the IP address management computer
25 420 does not erase the inquiry information, but

sequentially stores it.

By just this, information of for example the frequency of occurrence of inquiries can be obtained for every time band. Further, it also becomes possible to 5 analyze the types of the inquiries, for example what inquiries are frequently made in which time band.

If such information can be provided to the information provider, the information provider can optimize the deployment of the operators etc.

10 More preferably, the IP address management computer 420 stores the inquiries from the same user linked together.

For this purpose, the customer number is made a number that is uniquely determined for every customer.

15 Another identification number for reporting to the information provider is generated and allocated for every generated inquiry (event).

In this case, for example as shown in Fig. 6, the newest inquiry information is stored with respect to the 20 customer number. Identification numbers used for inquiries successively generated from that customer are stored in the indirectly designated storage region. When doing this, at least the number of times of the inquiries made by that customer can be easily grasped.

25 Further, by doing this, since a different

identification number is notified to the information providing company every time even for inquiries from the same customer, the action of identifying the personal information of the user by linking them etc. can be prevented.

Note that, even if the inquiry information from the user is stored in this way, preferably it is sequentially erased and updated every certain period.

In this way, according to the information communication system of the third embodiment, it is possible to obtain a log of inquiries and responses for both of the user and the web page carrying organization. Accordingly, by performing for example statistical processing on this, it is also possible to perform processing for example for extracting problematic users and web page carrying organizations or extracting web page carrying organizations accessed many times.

Further, the interface between the user and the information provider can be made more proper and efficient.

Modification

Note that, the present invention is not limited to the present embodiments. Various modifications are possible.

For example, the first embodiment was comprised so

that the user designated the IP address at the time of an inquiry and so that the information provider responded to the inquiry via the Internet. Further, the second embodiment was comprised so that the user designated the 5 telephone number at the time of the inquiry and the information provider responded to the user via an ordinary phone. However, neither of these communication media has to be selected. The user may designate both of the IP address and the telephone number and obtain a 10 response by any method and any means. Further, it is also possible to obtain a response by any method by using any medium other than this.

Further, as the method of transferring the information input on the web page viewed on the personal 15 computer 210 and provided from the web page carrying computer 310 of the information providing system 300 to the information relaying system 400 in the state concealed from the information providing system 300, in the embodiments, the method was employed of using an 20 object immediately shifting control to the inquiry button management company 410 together with the execution and inputting the information based on the environment provided from the inquiry button management computer 410 at the time of input of the information. However, this 25 method may be any method. For example, it is also

possible to input information desired to be concealed and transfer the input information to the inquiry button management computer 410 in a secure state by providing the information relaying system 400 with an object and a
5 management module for managing information in a state encrypted to the information providing system 300 and have the information providing system 300 arrange this on the web page.

Further, in the above embodiments, the web page
10 carrying computer 310 for providing the web page was provided as a device on the company side providing the information. However, this web page carrying computer 310 may be the system of a third party different from the information providing apparatus too. For example, this is
15 when the information provider asks an external provider or the like to set up the web page. It is clear that such a case is within the scope of the present invention without problem using exactly the same processing as that of the case of the present embodiments.

20 Further, as a format resembling this, a case where a third party having the web page carrying computer 310 is the organization guaranteeing secure processing similar to a business having the information relaying system can be considered. In such a case, the web page carrying
25 computer 310 can perform the processing without using an

object or encryption module provided from the information relaying system 400. Namely, it is possible for an organization to receive an inquiry from a user in the same way as a usual interface and to respond to the request at its responsibility not by transferring information to the information provider, but by transferring it to the information relaying system 400. Such a format is also within the scope of the present invention.

Further, the information relaying system 400 of the information communication system of the present invention does not have to have a special construction, but such a function can be provided by for example a telephone office.

Summarizing the effects of the invention, as explained above, according to the present invention, it is possible to provide a network system and a communication method whereby inquiries, requests for information, etc. from the users to the company can be processed without having the user wait or revealing his or her personal information and facilitating handling at the company side.

Further, a communication system forming the basis for realizing such a network system can be provided.

Further, an information relaying apparatus and a

method of the same and an information providing apparatus preferable for such a network system can be provided.

While the invention has been described with reference to specific embodiment chosen for purpose of illustration, it should be apparent that numerous modifications could be made thereto by those skilled in the art without departing from the basic concept and scope of the invention.

What is claimed is:

1. A network system having an information providing apparatus for providing information via the network and a user apparatus for acquiring intended information via the network, comprising:
 - a user apparatus for requesting intended information with respect to a specific information providing apparatus to a predetermined information relaying apparatus different from said information providing apparatus;
 - an information relaying apparatus for changing said request for information with respect to said user apparatus to a format that does not enable identification of the user apparatus originating the related request,
 - transmitting the format changed request to the information providing apparatus of the destination of the request, when there is a request for communication from said information providing apparatus, performing predetermined communication with respect to said user apparatus and enabling communication between said information providing apparatus and said user apparatus;
 - and
 - an information providing apparatus providing information via the network, requesting communication with said user apparatus originating the request from

said information relaying apparatus based on said request for information transmitted from said information relaying apparatus.

2. A network system as set forth in claim 1,
5 wherein

said information relaying apparatus deletes information identifying the user apparatus originating the request with respect to said request for information, imparts a predetermined identifier that does not enable identification of the user apparatus originating the request but identifies the request for information, and transmits the request to the information providing apparatus and

10
15
said information providing apparatus notifies said information relaying apparatus of a predetermined identifier for identifying said request for information attached to said request sent from said information relaying apparatus so as to request communication with the user apparatus originating the request to the information relaying apparatus.

20
3. A network system as set forth in claim 2,
wherein

25
said information providing apparatus provides information by a web page having a predetermined object for operation when requesting information and

000014-00000000
said user apparatus accesses said web page to obtain information and requests said information from said information providing apparatus when a predetermined object is operated.

5 4. A network system as set forth in claim 3, wherein said predetermined object for requesting information provided in the web page provided by the information providing apparatus performs processing for inputting information relating to said request for 10 information in said user apparatus in a state not able to be viewed by said information providing apparatus and transmitting said input information to said information relaying apparatus in a state not able to be viewed by said information providing apparatus.

15 5. A network system as set forth in claim 4, wherein said object has an appearance which clearly indicates it is an object performing said processing in a state not able to be viewed by said information providing apparatus.

20 6. A network system as set forth in claim 4, wherein said predetermined object is a processing module encrypted by said information relaying apparatus and substantially provided in said information providing apparatus.

25 7. A network system as set forth in claim 4,

wherein

5 said information providing apparatus generates response information for said request based on said request for information transmitted from said information relaying apparatus and transmits the response information to the information relaying apparatus and

 said information relaying apparatus transmits said response information to said user apparatus through the network.

10 8. A network system as set forth in claim 4, wherein said information providing apparatus searches for a person suitable for responding to said request based on said request for information transmitted from said information relaying apparatus and notifies the request for information to said person.

15 9. A network system as set forth in claim 8, wherein

20 the request for communication from the information providing apparatus to said information relaying apparatus is a request for communication by voice through the telephone and

25 said information relaying apparatus calls said user apparatus and secures a communication path by telephone between said information providing apparatus and said user apparatus based on said request for

communication.

10. A network system as set forth in claim 1,
wherein

the request for communication from the
5 information providing apparatus to said information
relaying apparatus is a request for communication by
voice through the telephone and

said information relaying apparatus requests
real time voice communication with the user apparatus
10 through the network and secures a communication path by
telephone between said information providing apparatus
and said user apparatus through said voice communication
apparatus based on said request for communication.

11. A network system as set forth in claim 8,
15 wherein said information relaying apparatus stores
content of a request for information, information
identifying the user apparatus originating the request,
and a predetermined identifier identifying the request
for information linked together, performs predetermined
20 statistical processing on the stored information, and
analyzes the generation of requests for information.

12. A network system as set forth in claim 11,
wherein said information providing apparatus determines
an environment of said information providing apparatus
25 including one or both of a configuration of said

information providing apparatus and the deployment of persons for handling said requests for information based on the result of analysis.

13. A method of communication between an information providing apparatus providing information and a user apparatus connected by a network, wherein:

the user apparatus requests the intended information with respect to a specific information providing apparatus to a predetermined information relaying apparatus different from said information providing apparatus,

said information relaying apparatus changes said request for information to a format that does not enable identification of the user apparatus originating the request and transmits the format changed request to the information providing apparatus of the destination of the request,

said information providing apparatus requests communication with said user apparatus originating the request based on said request transmitted from said information relaying apparatus with respect to said information relaying apparatus, and

said information relaying apparatus performs predetermined communication with said user apparatus based on said request of communication and makes the

communication between said information providing apparatus and said user possible.

14. A method of communication as set forth in claim 13, wherein

5 said user apparatus accesses the web page provided by the information providing apparatus through the network and operates a predetermined object requesting information provided in the web page so as to request said information to the information providing apparatus and

10 said predetermined object inputs the information relating to the request for information from said user apparatus in a state not able to be viewed by said information providing apparatus and transmits the input information to said information relaying apparatus in a state not able to be viewed by said information providing apparatus.

15 A method of communication as set forth in claim 13, wherein

20 said information relaying apparatus deletes information identifying the user apparatus originating the request with respect to said request for information, imparts a predetermined identifier that does not enable identification of the user apparatus originating the request but identifies the request for information, and

CONFIDENTIAL

transmits the same to the information providing apparatus
and

5 said information providing apparatus notifies
 said information relaying apparatus of a predetermined
 identifier for identifying said request for information
 attached to said request sent from said information
 relaying apparatus so as to request communication with
 the user apparatus originating the request to the
 information relaying apparatus.

10 16. A method of communication as set forth in claim
 13, wherein said information identifying the user
 apparatus originating the request includes one or both of
 an IP address and telephone number of the user apparatus.

15 17. A method of communication as set forth in claim
 13, wherein

20 said information providing apparatus generates
 response information for a transmitted request for
 information based on said request and transmits the
 response information to the information relaying
 apparatus and

 said information relaying apparatus transmits
 said response information to said user apparatus through
 a network.

25 18. A method of communication as set forth in claim
 13, wherein said information providing apparatus searches

for a person suitable for responding to a request for information transmitted from said information relaying apparatus based on said request and notifies said request for information to that person.

5 19. A method of communication as set forth in claim
13, wherein

 said information providing apparatus requests communication by voice to said information relaying apparatus through the telephone and

10 said information relaying apparatus calls said user apparatus and secures a communication path by telephone between said information providing apparatus and said user apparatus based on said request for communication.

15 20. A method of communication as set forth in claim
13, wherein

 said information providing apparatus requests communication by voice to said information relaying apparatus through the telephone and

20 said information relaying apparatus requests real time voice communication with the user apparatus through the network and secures a communication path by telephone between said information providing apparatus and said user apparatus through said voice communication apparatus based on said request for communication.

25

21. A communication system for performing intended communication between a first communication apparatus and a second communication apparatus based on a request of said first communication apparatus in a network with a plurality of communication apparatuses connected therein,
5 comprising:

a first communication apparatus for requesting intended communication with respect to a specific second communication apparatus to a predetermined relaying apparatus;

10 a relaying apparatus for converting the request to a format that does not enable identification of the first communication apparatus originating the request when said intended communication is requested from said first communication apparatus, requesting the intended communication with respect to the second communication apparatus of the destination of the request, and performing predetermined communication based on the request with respect to said first communication apparatus when said second communication apparatus requests communication with said first communication apparatus; and

20 25 a second communication apparatus for requesting communication with said first communication apparatus originating the request from said relaying apparatus when

35 said relaying apparatus requests said intended
communication and performing the intended communication
based on said request with the first communication
apparatus.

5 22. An information relaying apparatus comprising:
 a first receiving means for receiving a request
 for intended information with respect to an information
 providing apparatus from the user;
 a converting means for converting said received
10 request for information to a format that does not enable
 identification of the user apparatus originating the
 request;
 a transmitting means for transmitting said
 converted request for information to the information
15 providing apparatus;
 a second receiving means for receiving a
 request of the communication with respect to said user
 apparatus from said information providing apparatus;
 a user apparatus detecting means for
20 identifying the user apparatus of the destination of the
 communication based on said received request for
 communication; and
 a communicating means for predetermined
 communication based on said request with respect to the
25 user apparatus based on said detection result.

23. An information relaying apparatus as set forth
in claim 22, wherein

5 said converting means deletes information
identifying said user apparatus originating the request
from the request for information, adds a predetermined
identifier identifying said request for information
without enabling identification of the user apparatus
originating the request when converting, and

10 said user identifying apparatus identifies said
user apparatus based on a predetermined identifier
identifying said request for information notified from
said information providing apparatus.

15 24. An information relaying apparatus as set forth
in claim 23, wherein said converting means generates a
random identifier unrelated to the information
identifying the user apparatus originating the request as
the predetermined identifier identifying said request for
information.

20 25. An information relaying apparatus as set forth
in claim 23, wherein

25 said converting means generates said
predetermined identifier identifying said request for
information based on information identifying the user
apparatus originating the request and

 said user apparatus detecting means reversely

generates information identifying said user apparatus originating the request to identify the user apparatus based on said predetermined identifier identifying said request for information notified from said information providing apparatus.

26. An information relaying apparatus as set forth in claim 23, further comprising a storage means for storing information including information identifying the content of the request for information, information identifying the user apparatus originating the request, and the predetermined identifier identifying the requested information.

27. An information relaying apparatus as set forth in claim 26, wherein said user apparatus detecting means detects information stored in said storage means and identifies the user apparatus based on said predetermined identifier identifying said request for information notified from said information providing apparatus.

28. An information relaying apparatus as set forth in claim 26, further provided with an analysis means for performing predetermined statistical processing on said information relating to said request for information which is stored and analyzing the generation of said requests for information.

29. An information relaying apparatus as set forth

in claim 28, wherein

said storage means stores information relating
to the time of occurrence of a request for information
linked with said requests for information and

5 said analysis means analyzes said requests for
information using the time as an indicator.

30. An information relaying apparatus as set forth
in claim 28, wherein

said storage means restores said requests for
information for each user apparatus and

said analysis means analyzes said requests for
information using the user apparatus as an indicator.

31. An information relaying apparatus as set forth
in claim 23, wherein said communicating means
15 communicates with said user apparatus by a communication
path including at least one of a network, telephone line,
or network telephone function through a network based on
said request for communication.

32. An information relaying method comprising a
20 step of:

receiving a request for intended information
with respect to an information providing apparatus from a
user apparatus;

25 deleting information identifying the user
apparatus originating the request with respect to said

request for information, imparting a predetermined identifier that does not enable identification of the user apparatus originating the request but identifies the request for information, and converting the same to a new
5 request for information;

transmitting said converted request for information to the information providing apparatus;

receiving the request for communication with respect to a user apparatus containing a predetermined
10 identifier for identifying said request for information from said information providing apparatus;

detecting information identifying the user apparatus of the destination of the communication based on said predetermined identifier of said received request
15 of communication; and

performing the predetermined communication based on said request with respect to the user apparatus based on said detection result.

33. An information providing apparatus comprising:
20 a first apparatus providing on a web page an object having a function of receiving input of information enabling identification of a user apparatus accessing the web page and transferring the received information to a specific apparatus in a format that does not enable viewing by the information providing apparatus
25

and providing information on the network by using a web page that can perform the request via the object with respect to the user apparatus requesting the communication and

5 a second apparatus for performing predetermined processing for handling a request for communication comprised of said request for communication received from said object converted to a format that does not enable identification of the user apparatus and transmitting the same to a predetermined designated response apparatus.

10 34. An information providing apparatus as set forth in claim 33, wherein said first apparatus arranges said object in said web page in a state clearly indicated as an object for said processing in a state unable to be viewed from said information providing apparatus

15 35. An information providing apparatus as set forth in claim 34, wherein said second apparatus

is provided with a database means storing information,

20 searches through the database means and generates information of a response to a request for communication when said request for communication is a request for information, and

25 transmits the same to a predetermined designated response apparatus.

DOCUMENT NUMBER

NETWORK SYSTEM AND COMMUNICATION METHOD OF SAME,
COMMUNICATION SYSTEM, INFORMATION RELAYING APPARATUS AND
METHOD OF SAME, AND INFORMATION PROVIDING APPARATUS

5

ABSTRACT OF THE DISCLOSURE

A network system and communication method of same, a
communication system, an information relaying apparatus
and method of the same, and an information providing
apparatus, which prevent personal information from being
revealed when requesting more detailed material from a
web page providing apparatus, wherein when a user system
views a web page established by a web page carrying
computer, if the user clicks a "CALL ME" button for
inquiry, an information input screen controlled by a
button management computer is displayed; when the user
inputs his or her ID and inquiry content etc. from there,
this information is transferred to an information
relay system and an identification number that does
not enable identification of the user system is attached
and transferred as the inquiry information with respect
to an information providing system; and, when the
information providing system replies to the user, this
identification number is converted to the ID for

identifying the user by the information relaying system
for the response.

FIG. 1

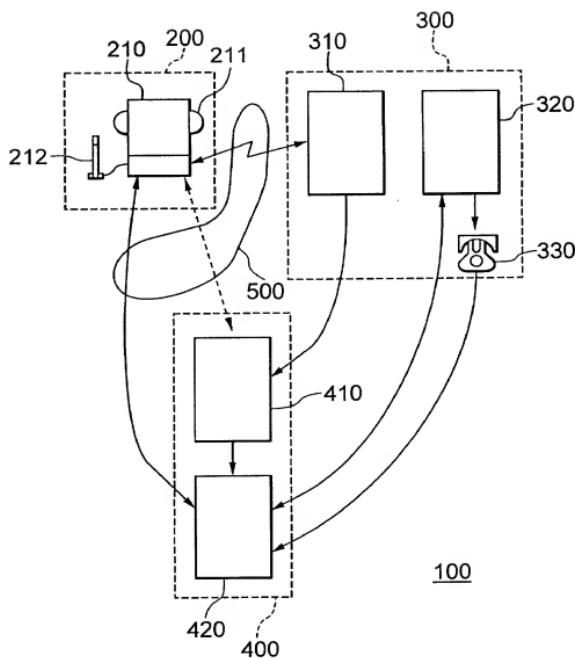


FIG. 2A

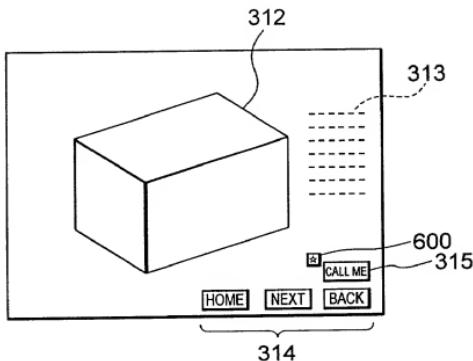


FIG. 2B

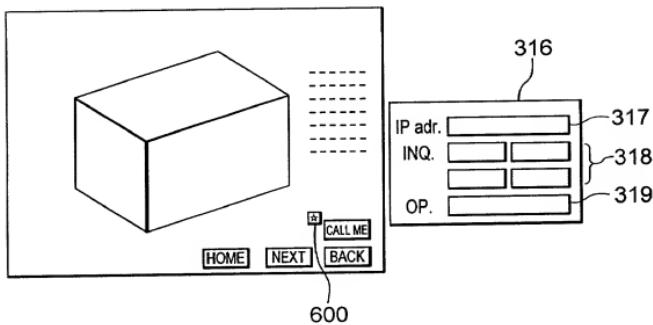


FIG. 3

FIG. 4

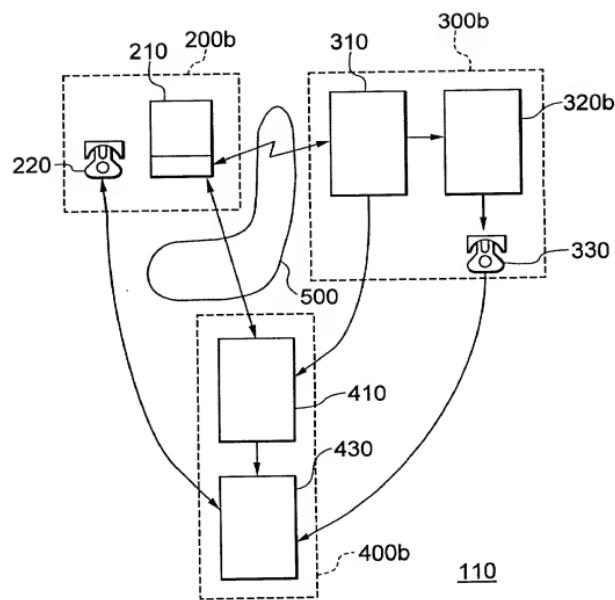
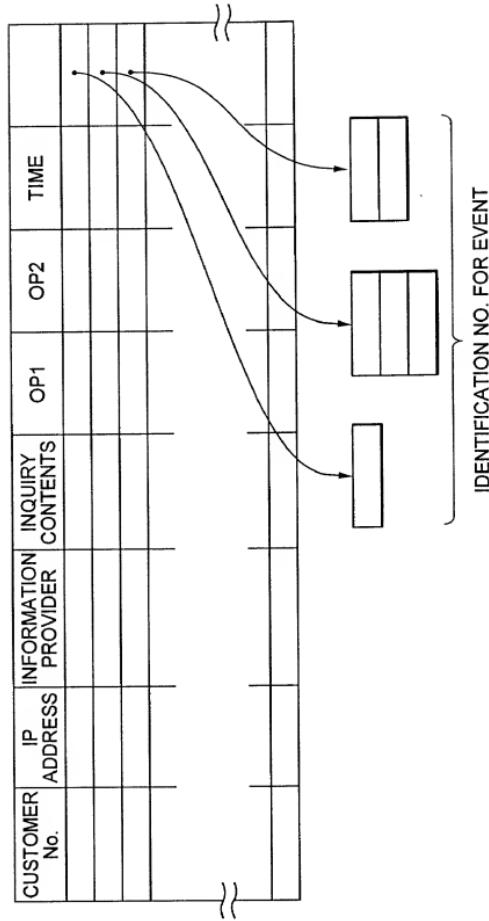


FIG. 5

FIG. 6



SONY-U0596

Declaration and Power of Attorney For Patent Application

特許出願宣言書及び委任状

Japanese Language Declaration

日本語宣言書

下記の氏名の発明者として、私は以下の通り宣言します。		As a below named inventor, I hereby declare that:	
私の住所、郵便番号、国籍は下記の私の氏名の後に記載された通りです。		My residence, post office address and citizenship are as stated next to my name.	
下記の名称の発明に関して請求範囲に記載され、特許出願している発明内容について、私が最初かつ唯一の発明者（下記の氏名が一つの場合）もしくは最初かつ共同発明者であると（下記の名称が複数の場合）信じています。		I believe I am the original, first and sole inventor (if only one named is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled.	
		<u>NETWORK SYSTEM AND COMMUNICATION METHOD OF SAME, COMMUNICATION SYSTEM, INFORMATION RELAYING APPARATUS AND METHOD OF SAME, AND INFORMATION PROVIDING APPARATUS</u>	
上記発明の明細書（下記の欄でx印がついていない場合は、 本書に添付）は、		the specification of which is attached hereto unless the following box is checked:	
<input checked="" type="checkbox"/> 一月____日に提出され、米国出願番号または特許協定条約 国際出願番号を_____とし、 (該当する場合) _____に訂正されました。		<input type="checkbox"/> was filed on _____ as United States Application Number or PCT International Application Number _____ and was amended on _____ (if applicable).	
私は、特許請求範囲を含む上記訂正後の明細書を検討し、 内容を理解していることをここに表明します。		I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.	
私は、連邦規則法典第37編第1条56項に定義されるると おり、特許資格の有無について重要な情報を開示する義務が あることを認めます。		I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.	
私は、米国法典第35編119条(a)-(d)項又は365条 (b)項に基づき下記の、米国以外の國の少なくとも一ヶ国を指 定している特許協力条約365(a)項に基づく国際出願、又 は外国での特許出願もしくは発明者証の出願についての外国 優先権をここに主張するとともに、優先権を主張している。 本出願の前に出願された特許または発明者証の外国出願を以 下に、枠内をマークすることで、示しています。		I hereby claim foreign priority under Title 35, United States Code, Section 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.	
Prior Foreign Application(s) 外国での先行出願		Priority Not Claimed 優先権主張なし	
P11-321440 (Number) (番号)	Japan (Country) (国名)	11 November 1999 (Day/Month/Year Filed) (出願年月日)	
(Number) (番号)	(Country) (国名)	(Day/Month/Year Filed) (出願年月日)	
私は、第35編米国法典119条(e)項に基いて下記の米 国特許出願規定に記載された権利をここに主張いたします。		I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below.	
(Application No.) (出願番号)	(Filing Date) (出願日)	(Application No.) (出願番号)	(Filing Date) (出願日)

Declaration and Power of Attorney For Patent Application

特許出願宣言書及び委任状

Japanese Language Declaration

日本語宣言書

私は、下記の米国法典第35編120条に基いて下記の米国特許出願に記載された権利、又は米国を指定している特許協力条約365条(c)に基づく権利をここに主張します。また、本出願の各請求範囲の内容が米国法典第35編112条第1項又は特許協力条約で規定された方法で先行する米国特許出願に開示されていない限り、その先行米国出願書提出日以降で本出願書の日本国内または特許協力条約国際提出日までの期間中に入手された、連邦規則法典第37編1条56項で定義された特許資格の有無に関する重要な情報について開示義務があることを認識しています。

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s), or 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of application.

(Application No.) (Filing Date)
(出願番号) (出願日)

(Status: Patented, Pending, Abandoned)
(現況: 特許可済、保属中、放棄済)

(Application No.) (Filing Date)
(出願番号) (出願日)

(Status: Patented, Pending, Abandoned)
(現況: 特許可済、保属中、放棄済)

私は、私自身の知識に基づいて本宣言書中で私が行なう表明が真実であり、かつ私の入手した情報と私の信じるところに基づく表明が全て真実であると信じてのこと、さらに故意になされた虚偽の表記及びそれと同等の行為は米国法典第18編第1001条に基づき、罰金または拘禁、もしくはそぞの両方により処罰されること、そしてそのような故意による虚偽の声明を行なえば、出願した、又は既に許可された特許の有効性が失われることを認識し、よってここに上記のごとく宣誓を致します。

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may be jeopardize the validity of the application or any patent issued thereon.

委任状： 私は下記の発明者として、本出願に関する一切の手続きを米特許商標局に対して遂行する弁理士または代理人として、下記の者を指名いたします。（弁護士、または代理人の氏名及び登録番号を明記のこと）

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark office connected therewith (list name and registration number)

Karl A. Limbach	18,689	Steven M. Everett	30,050	Mayumi Maeda	40,075
George C. Limbach	19,305	Alfred A. Equitz	30,922	Charles L. Hamilton	42,624
John K. Uilkema	20,282	Charles P. Sammut	28,901	Andrew V. Smith	43,132
Neil A. Smith	25,441	Mark C. Pickering	36,239	Eric N. Hoover	37,355
Veronica C. Devitt	29,375	Patricia Coleman James	37,155	Frank J. Mycroft	46,946
Ronald L. Yin	27,607	Kathleen A. Frost	37,326	Robert M. McConnell	46,912
Gerald T. Sekimura	30,103	Alan A. Limbach	39,749	J. Thomas McCarthy	22,420
Michael A. Stallman	29,444	Douglas C. Limbach	35,249	Joel G. Ackerman	24,307
Philip A. Girard	28,848	Saeng-Kun Oh*		Roger S. Sampson	44,314
Michael J. Pollock	29,098	Kyla E. Hamill	41,815	Susan M. Schmitt	34,427
		* Recognition under 37 CFR 10.9(b)		Edward B. Weller	37,468

書類送付先

Send Correspondence to:

Charles P. Sammut, Esq.
Limbach & Limbach L.L.P.
2001 Ferry Building
San Francisco, CA 94111-4262

Declaration and Power of Attorney For Patent Application

特許出願宣言書及び委任状

Japanese Language Declaration

日本語宣言書

直接電話連絡先：（名前及び電話番号）		Direct Telephone Calls to: (name and telephone number) Charles P. Sammut (415) 433-4150	
唯一または第一発明者名		Full name of sole or first inventor: TOMOSHI HIRAYAMA	
発明者の署名	日付	Inventor's signature	Date
住所	Residence Tokyo, Japan		
国籍	Citizenship Japan		
私書箱	Post Office Address c/o SONY CORPORATION 7-35, Kitashinagawa 6-chome Shinagawa-ku, Tokyo, 141-0001 JAPAN		